

# B R E V I O R A

## Museum of Comparative Zoology

---

CAMBRIDGE, MASS.

June 30, 1958

NUMBER 88

---

### A NEW SPECIES OF THE GENUS UROTHECA (SERPENTES: COLUBRIDAE) FROM VENEZUELA

By J. A. ROZE

Escuela de Biología  
Universidad Central de Venezuela

While touring several U. S. museums in 1957 I discovered among the Venezuelan herpetological material in the Museum of Comparative Zoology, Harvard University, a very peculiar undescribed species of the genus *Urotheca*. Later I found that the U. S. National Museum (USNM), the Carnegie Museum, Pittsburgh (CM), and Museo de Biología, Universidad Central de Venezuela (MBUCV) also have one specimen each of this form. I take the opportunity to describe this new species.

I express my appreciation to Dr. E. E. Williams, Dr. D. M. Cochran and Mr. N. D. Richmond, not only for permitting me to examine the collections at their museums, but also for other kindnesses I received during my stay in the United States.

I would also express due thanks to the Fundación Creole, Caracas, Venezuela, and to the Council Research Fund, American Museum of Natural History, whose help enabled me to take this study tour.

#### UROTHECA WILLIAMSI n. sp.

*Leimadophis bimaculatus opisthotaenia*, Marcuzzi, 1950, Nov. Cient. La Salle,  
Ser. Zool., No. 3, p. 8.

*Holotype*. ♀ MCZ No. 51329, collected by G. Marcuzzi in  
October, 1949.

*Type locality.* El Junquito, Distrito Federal, Venezuela, 1900 meters.

*Paratypes.* ♂ USNM No. 121206 collected in Colonia Tovar, estado Aragua, Venezuela, 1800 meters, by E. G. Holt on March 30, 1929; ♂ CM No. 7393, collected in Colonia Tovar, estado Aragua, Venezuela, 1800 meters, by E. G. Holt on April 30, 1929; ♀ MBUCV No. 3044, collected in Rancho Grande, estado Aragua, Venezuela, 1200 meters, by J. Racenis on August 23, 1949.

*Distribution.* The Central Cordillera de la Costa in northern Venezuela, between 1000 and 2000 meters. This zone is covered by typical cloud forest (high rain forest).

*Diagnosis.* *Urotheca* with one scale pit on the dorsals; 17-18+2 maxillary teeth; 146 to 158 ventrals; 53 to 61 subcaudals; 17-17 dorsals, without any reduction; 1 or 2 preoculars, and a *Leimadophis*-like coloration: dark longitudinal lateral lines beginning on the anterior part of the body and extending to the tip of the tail.

*Description of the holotype.* Maxillary teeth 17+2, the last two somewhat enlarged and separated from the rest by a gap. Mandibular teeth subequal. Head squamation that of *Urotheca*, rostral scarcely visible from above, nasals divided, the nostrils situated on the dividing suture. A pair of internasals and prefrontals, the latter a little broader than long and longer than the internasals. The frontal shield twice as long as the prefrontals and approximately as long as the parietals. A loreal shield, deeply penetrating the preocular, and reaching almost to the orbit. One preocular, trapezoidal, twice as wide above as below. Two postoculars, the upper much larger than the lower. Temporals 1+2 on both sides. Seven upper labials, the third and fourth entering the orbit. Nine infralabials, the first four in contact with the anterior pair of chin shields, of which the first pair is longer than the second. Ventrals 150, anal divided, and 53 pairs of subcaudals. The dorsal formula 17-17, without any reduction.

*Coloration.* Head and upper part of the body grey (brown in life?). Upper lip black, crossed by a white line, which begins on the rostral shield and disappears on the neck. Infralabials and other ventral shields white, heavily mottled with black. This mottling is present also on the ventrals, where it concentrates

mainly along the borders of the ventral scales, but fades gradually posteriorly on body. On mid-line of the subcaudals the black coloration appears again as an irregular ill-defined dark line.

The black supralabial coloration continues on the neck as a series of black blotches, which on the anterior third of the body form a lateral black line, at first occupying the whole of the scales on the fourth dorsal row, but more posteriorly shifting to the lower part of the scales of the fourth and upper part of the scales of the third dorsal row.

Anteriorly on the mid-dorsum there are irregular black spots, which gradually unite to form two black lines on the eighth scale row on each side. These lines are well defined on the posterior part of the body, the zone between them being darker than the general coloration. On the tail the two middorsal lines fuse, so that there are only three black lines (one middorsal and two lateral) on the tail.

Total length: 420 mm., tail 85 mm.

*Notes on the paratypes.* The general characteristics are those of the holotype. The total variation of the scale counts in all specimens, including the holotype, is as follows: 146 to 158 ventrals ( $\delta \delta$  : 155-158;  $\varnothing \varnothing$  : 146-150), 53 to 61 subcaudals ( $\delta \delta$  : 58-61;  $\varnothing \varnothing$  : 53-59), anal always divided, dorsal formula 17-17. Supralabials 7 (3, 4), infralabials are 9 (4) or 10 (5). There is one preocular on both sides in one specimen, two preoculars on both sides in two specimens, and one specimen has one on the left and two on the right side. There are 1+2 or 1+1+2 temporals.

The coloration of the paratypes is similar to that of the holotype, with exception of the MBUCV No. 3044, which seems to be a somewhat more melanistic and aberrant specimen. It has the middorsal black line broader, covering the superior part of the seventh and the whole of the eighth and ninth rows, and the zone between the middorsal and lateral black lines is lighter (pale brown). The MBUCV specimen is darker in general: the mottling on the underside of the head being almost black and the dark streak on the middle line of the subcaudals being darker.

The CM specimen has the following hemipeneal characters: The sulcus spermaticus is bifurcated, the bifurcation taking place rather close to the base. At the base are several large spines or hooks. About 12 longitudinal rows of larger spines run from the base to the place where the bifurcation of the hemipenis occurs, each row containing 5 to 7 larger spines; among them are placed several smaller spines, which eventually may form additional longitudinal rows, between the big rows. At the apex, where the sulcus ends, there is a calyculated zone, formed by several larger and smaller calyces.

*Generic position.* This is one of the most complicated cases in the already sufficiently complicated *Leimadophis-Liophis-Urotheca*, etc. group of genera. This species has the following characteristics of the genus *Urotheca*:

1. Absence of any reduction in the dorsal squamation.
2. Calyculated and simple bifurcated sulcus of the hemipenis, as well as the presence of large spines or hooks at the base.
3. Dark lip coloration, with a white line crossing it.

It has, on the other hand, these characteristics of the genus *Leimadophis*:

1. The presence of one scale pit on dorsals.
2. The general coloration, i.e., a longitudinal dark lateral and dorsal line beginning to form at midbody, occupying all the posterior part of the body and the tail.

The maxillary dentition is in general intermediate between the two, although with a slight predominance of the *Urotheca*-like characteristics, i.e., there is a gap, but it is rather small, and also the two last teeth following the gap are somewhat smaller than usually is the case in *Leimadophis*.

The hemipenis and the dorsal scale formula were the characteristics which caused me to put this new species in the genus *Urotheca*, although the presence of one dorsal pit has been considered as a very decided *Leimadophis*-like character. However, on several occasions I have observed the absence of pits in specimens of several species of *Leimadophis* (*L. melanotus*, *L. reginae*), and I have found scale pits occasionally present in specimens of *Lygophis* and—more important—in *Liophis*. It seems that the presence or absence of scale pits in this group of genera and occasionally in others (cf. Amaral's genus *Barbourina*!) can

be used only as an auxiliary generic character. Moreover, scale pits are present in practically all reptiles, although usually so small that they are not seen except under high magnification. The problem thus arises: when are they sufficiently visible to be useful as a character?

As to the question of *Urotheca* vs. *Rhadinaea*, there can be little doubt, as pointed out by Dunn, 1957, that the earlier name should be used. *Urotheca dumerilii*, the genotype, apparently is not a Cuban form, as originally presumed, but most probably a species from Central America (the description suggests this very strongly), described later as a species of *Rhadinaea* (*R. pachyura fulviceps*). On this view, the genus *Rhadinaea* Cope, 1863, is a synonym of *Urotheca* Bibron, 1843. To use *Urotheca* will certainly simplify the taxonomy greatly, since in the past various authors have distributed species to one or the other genus, without any clear concept of the differences between them.

The holotype and the MBUCV specimen have been reported by Marcuzzi, 1950, as *Leimadophis bimaculatus opisthotaenia*, but this is an error, since the latter species is a form from the Andes of Mérida, Venezuela, and is a true *Leimadophis* (I have seen several specimens of that form), and very distinct indeed from *U. williamsi*.

I take pleasure in naming this species for my friend and colleague, Dr. Ernest E. Williams, from whom I received much kind help and cooperation, while staying at the Museum of Comparative Zoology.

#### BIBLIOGRAPHY

BOULENGER, G. A.

1908. Descriptions of new South American reptiles, *Ann. Mag. Nat. Hist.*, (8) 1: 111-115.

DUNN, E. R.

1957. Neotropical frog genera: *Prostherapis* versus *Hyloxalus* with remarks on *Phyllobates*. *Copeia*, 1957 (2): 11-18.

MARCUZZI, G.

1950. Ofidios existentes en las colecciones de los museos de Caracas (Venezuela). *Nov. Cient. La Salle, Ser. Zool.*, 3: 1-20.